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Gregory M. Fahy
Application No.: 10/066,285
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Atty. Dkt. No. 074066-0115

Amendment to the Claims/Listing of Claims

Please amend claims 1-6, 36, 37, 39, 40, 43-49, 51, 59, 61 and 66, and cancel claims 67 and 68 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A ~~preservation~~ solution for the liquid state hypothermic preservation of cells, tissues, and organs, said solution comprising a combination of polyglycerol and lactose ~~in an amount effective to preserve the cells, tissues, and organs under hypothermic conditions~~ having a total osmotic concentration in the range of 20 milliosmolal to 250 milliosmolal.

2. (Currently amended) The ~~preservation~~ solution of claim 1 wherein the lactose comprises alpha-lactose.

3. (Currently amended) The ~~preservation~~ solution of claim 1 wherein the polyglycerol ~~[[is]]~~ comprises from ~~[[n =]]~~ 2 to ~~[[n =]]~~ 200 monomer units.

4. (Currently amended) The ~~preservation~~ solution of claim 1 wherein the polyglycerol is decaglycerol or hexaglycerol.

5. (Currently amended) The ~~preservation~~ solution of claim 1 wherein the lactose is ~~at a concentration from~~ falls in the range of 11 mM to 250 mM.

6. (Currently amended) The ~~preservation~~ solution of claim 1 wherein the polyglycerol ~~is at a concentration~~ falls in the range of 10 mOsm to 250 mOsm.

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7-35. (Cancelled)

36. (Currently amended) The ~~preservation~~ solution of claim 1 further comprising glutathione.

37. (Currently amended) The solution of claim ~~[[36]]~~ 1, further comprising chondroitin sulfate.

38. (Previously presented) The solution of claim 37 wherein the chondroitin sulfate is chondroitin sulfate A.

39. (Currently amended) The solution of claim 37, wherein the concentration of chondroitin sulfate ~~is on the order~~ falls in the range of 0.01% w/v to 1% w/v.

40. (Currently amended) The solution of claim ~~[[37]]~~ 1, further comprising chlorpromazine.

41. (Previously presented) The solution of claim 40, wherein the concentration of chlorpromazine is about 1-50 micrograms/ml.

42. (Previously presented) The solution of claim 41, wherein the concentration of chlorpromazine is about 2-10 micrograms/ml.

43. (Currently amended) The solution of claim ~~[[40]]~~ 1, further comprising citrate.

44. (Currently amended) The solution of claim ~~[[43]]~~ 1, further comprising calcium.

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45. (Currently amended) The solution of claim ~~[[44]]~~ 1, further comprising magnesium.
46. (Currently amended) The solution of claim ~~[[45]]~~ 1, further comprising adenine.
47. (Currently amended) The solution of claim ~~[[46]]~~ 1, further comprising glucose.
48. (Currently amended) The solution of claim ~~[[47]]~~ 1, further comprising acetate.
49. (Currently amended) The solution of claim ~~[[48]]~~ 1, further comprising phosphate buffer.
50. (Previously presented) The solution of claim 1, wherein the solution has an osmolality of less than about 350 mOsm.
51. (Currently amended) The solution of claim 1, further comprising citrate and glucose, wherein the sum of ~~all impermeant species contributes~~ the osmotic contributions of polyglycerol, lactose, citrate and glucose to the solution is 20-250 mOsm (milliosmolal) ~~to the osmolality of the solution.~~
52. (Previously presented) A method for the preservation of cells, tissues, or organs under conditions of impaired cell volume homeostasis, comprising:
contacting the cells, tissues, or organs with a solution of claim 1.
53. (Previously presented) A method for the preservation of cells, tissues, or organs under conditions of impaired cell volume homeostasis, comprising:

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contacting the cells, tissues, or organs with a solution comprising polyglycerol in an amount effective to preclude or to reverse cell swelling.

54. (Previously presented) The method of claim 53 wherein the contacting is via intravenous or intra-arterial administration.

55. (Previously presented) The method of claim 53 wherein the contacting is in vivo via arterial organ perfusion or retrograde venous perfusion of an organ or vascularized tissue.

56. (Previously presented) The method of claim 53 wherein the contacting is in vitro via arterial organ perfusion or retrograde venous perfusion of an organ or vascularized tissue.

57. (Previously presented) The method of claim 53 wherein the contacting is via the immersion of or bathing of affected cells, tissues, or organs.

58. (Cancelled)

59. (Currently amended) The method of claim 53 wherein the polyglycerol [[is]] comprises from $[[n=]]2$ to 200 monomer units ~~in length~~.

60. (Previously presented) The method of claim 53 wherein the polyglycerol is tetraglycerol, hexaglycerol, or decaglycerol.

61. (Currently amended) The method of claim 53 wherein the concentration of polyglycerol in contact with the cell, tissue, or organ is at a concentration of from about 20 mOsm to 1,500 mOsm ~~when in contact with the cell, tissue, or organ.~~

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62. (Previously presented) The method of claim 53 wherein the effective amount is an isotonic solution.

63. (Previously presented) The method of claim 53 wherein the effective amount is a hypertonic solution.

64. (Previously presented) A method for the preservation of cells, tissues, or organs under conditions of impaired cell volume homeostasis, comprising:
contacting the cells, tissues, or organs with a solution comprising lactose in an amount effective to preclude or to reverse cell swelling.

65. (Previously presented) The method of claim 64 wherein the lactose comprises alpha lactose.

66. (Currently amended) The method of claim 64 wherein the lactose ~~is at a~~ concentration ~~from~~ falls in the range of about 11 mM to about 250 mM.

67-68. (Cancelled)